QUALITY ILLUMINAION PRODUCT

Naresh Mohanty, owner of Quality illumination Products, was reviewing a discussion he had just completed with the buyer of a large Odisha's event management retail store. The buyer had indicated to Naresh that if Strand was able to quote a price of ₹37.49 per carton of 18 lights, the company would receive an initial order of 2,000 cartons (36,000 lights). Naresh was anxious to accept the order, but he was unsure whether he could drop the price to ₹37.49. In addition, he was concerned about the delivery requirements and the effect the order was going to have on overall cash flow.

QUALITY ILLUMINAION PRODUCT

Quality illumination Products was a small, owner-managed business located in a medium-sized Odisha's city, manufacturing decorative lights, regional devotion product, torches and wedding lights and other related products. The majority of items manufactured were of medium-low quality and low price. Major customers included department wedding chain stores, small local vendor and lighting stores, and electronic stores. Naresh had owned company for several years, and during this time, he had earned a modest living. Cash flow was becoming a greater concern for the company because customers were habitually taking longer to pay and suppliers were demanding increasingly shorter credit terms.

THE ORDER

Naresh had been negotiating the order with the retail chain store for over a month. His travelling costs to date totalled ₹350. The product was a 4" × 7" utility lights with a plastic holder that hold around the edges of the light and over the back and included a cut-out for hanging purposes. The buyer had hoped to launch the product in a back-to-wedding and temple for use in entry gate.
The previous week, Naresh had quoted the buyer the following terms:

QUOTATION

To: JAGGANATH ENTERPRISES
From: QUALITY ILLUMINAION PRODUCT
Date: 20-09-2025
Quotation No.: 789FR5235

Product Details

Item Description	Unit Price (₹)	Quantity per Carton	Total Price (₹)
LED Light Bulbs	₹41.99	18 lights	₹718

Terms & Conditions

- **Price:** ₹41.99 per carton
- **Payment Terms:** 5% discount if paid within 15 days; net payment due within 60 days (5%/15, n/60)
- **Shipping Terms:** FOB Supplier (Shipping Point)
- **Delivery Timeline:** 10 weeks from date of order
- **Validity:** This quotation is valid for [insert validity period]

- **Taxes & Duties:** Extra as applicable
- **Packaging:** Standard export packaging

The cartons were to be labelled with the chain store's logo, and they were to have a tear-away flap for display purposes.
During these latest discussions with the buyer, Naresh had learned that a price of ₹37.49 per carton with a six- to eight-week delivery period (from date of order) would be required to secure the order. It was expected that an order of this size would take a maximum of three days to ship. Future orders would be based on the success of this promotional campaign.

PRODUCTION PROCESS

The production process required purchasing four major raw materials (plastic holder, electronic chip, light shell and cartons; see Exhibit 1), integrating the chip with plastic light cell, assembling with holder and packaging the finished product.
Naresh employed full-time electronics engineer who spent about 75 % of his time chip integrating and doing related maintenance work on his equipment. The chip he worked on was purchased from a local electronics supplier in 5.0 × 5.0 mm size, called "5050 SMD". Naresh estimated that this engineer could integrate the chip 6,000 5.0x5.0 mm pieces per day and still have time to continue with the general duties he performed within the plant. Because all his other work was slightly ahead of schedule or could be rescheduled, the engineer would not have to work overtime to fill the new orders. His salary, was 300 per hour for a 40-hour week.
In addition to the light cell, Company employed low-skilled workers who also worked eight hours per day, six days per week and who were fully utilized at this time. In order to produce the utility integration, Naresh would have to hire temporary employees at 100 per hour to assemble the cell and all the parts, holder and cell integrate to the chip, pack the finished product in the cartons and seal and stack the cartons. An engineer had recently determined that the output varied directly with the number of workers, as follows:

Number of Workers on Team	Number of Cartons per Day
3	100
4	175
5	200
6	210

The specific light was one of many products' quality illumination had produced at one time or another, but not with any major continuity. Company did not have any inventories of chip & holder or plastic cells that could be used on this order. The cartons would have to be purchased specifically for this customer due to the required design features of the department store. The die cost (see Exhibit 1) was a one-time charge by the carton supplier for the tooling required to make the carton. Naresh thought this charge should be depreciated over a five-year period.

The light shape and holder were produced from an injection moulding manufacturer located in jagatpur, Cuttack, Odisha. The tooling required to produce the light outer shape cell and holder resided with the supplier but belonged to quality illumination itself. Six years ago, company had paid ₹32,00,000 for the tooling, which was depreciated on a units-of-output basis using a one million-unit life.

Other miscellaneous raw material costs for glue, tape, etc. were estimated at ₹10 per carton. companies' factory overhead costs, which were not expected to change as a result of this order, were allocated to individual products at 200% of direct labour.

DECISION

The price cut to ₹37.49 was very severe, and Naresh was quite concerned about the order's profitability. He also knew from experience that if delivery was late, not only would payment be delayed, but future orders would be in jeopardy.